

**Railways in
Profile Series**

No. 7

BRITISH RAILWAY WAGONS ENGINEER'S STOCK - 1



Compiled by G.Gamble



CHEONA PUBLICATIONS



Frontispiece

A southbound class 6 freight train conveying new ballast in a rake of 'Catfish' hopper wagons slows to enter the loop at Galgate on 11th July, 1963. Note the tell-tale light colouration to sleepers and ballast just ahead of the locomotive indicating loose ballast and sleeper movement. BR Standard Class 5, 4-6-0 No. 73131 is in typical 'grubby' external condition for the time but is of interest being one of the thirty members of the class which were fitted with Caprotti valve gear and it was also one of only ten such engines (73125-73134), which were allocated to the Western Region from new. All ten went to Shrewsbury - eventually moving en-bloc to Patricroft shed in September 1958, from where 73131 was withdrawn in 1968, being finally scrapped by Cashmores at Newport in May 1968. F.W.S.

Front Cover:

Upper view: DB980238 - TOPS coded YGA - is a 40T 'Sea Cow' bogie ballast hopper wagon looking resplendent in EWS livery. It is one of design code YE004A from lot No. 3996, (245 wagons, DB980000-980244), which were built by BREL at Ashford and Swindon works in 1981-82 (this lot includes some YE004R wagons and some 'Stingrays' of YE004M). Developed from the SR 'Walrus', these second batch vehicles have French Y27CS bogies with roller bearings, Oleo buffers and air brakes. Note the three control wheels on the end platform, (each end of the vehicle has this arrangement), which control the two outer and central ballast chutes. Photographed at Princes Risborough on 22nd July, 1998. G.G.

Lower view: DB972724 is a 21T ballast and sleeper wagon of design code ZB001A - one of five codes covering the 800 wagons, (DB972000-972799), which were converted from 21T hoppers by C.C.Crump Ltd and Marcroft Engineering in 1989-91. The chassis of this one was originally under B426121 of diagram 1/146, lot No. 3034, which was built by Head Wrightson in 1957. The buffers have been replaced and it is now air braked - TOPS code ZBA. Note there are three side doors each with a pair of controllers for safe lowering and the wagon sides and ends have considerable bracing. Photographed at Peterborough on 7th April, 1991. A.T.

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ENGINEER'S STOCK

Volume One

Compiled by G. Gamble



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If you have any material suitable for any of the above volumes then please contact the publisher at the above address.

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Preface

When initially listing titles for this series, Engineering Department stock was given one 'slot' but it didn't take more than a few minutes in the preparation of this volume to realise that such a vast array of vehicles could not possibly be covered in one volume. This title therefore embraces the 'Fishkind' vehicles with a few extra types that fit into the pattern of ballast, sleeper and rail wagons.

New conversions continue to appear but the exclusivity of these to the Engineers is set to change under the 'deregulation' proposed by EWS.

I hope that the selection of photographs will have plenty for modellers, railway historians and others who have an interest in railway rolling stock.

Introduction

The installation of a railway requires the movement of materials to the site and the removal of waste material as the groundwork is altered to accommodate the track and all the ancillary features. Once the railway is operational it has to be maintained and items replaced as wear and tear take their toll.

For all these operations special items of rolling stock were developed and as the constructional and maintenance aspects become more mechanised so more specialised equipment has been produced.

Nowadays Railtrack is responsible for construction and maintenance although outside contractors may be involved. Prior to this the Engineer's Departments of the Big Four and British Railways had these responsibilities and the main departments involved were:- Mechanical and Electrical Engineering - responsible for locomotives, rolling stock and electrical equipment, Signal and Telecommunication Engineering - responsible for the largest private telephone system and all signalling equipment and Civil Engineering - responsible for the maintenance of track, bridges and buildings and all these departments had their own special rolling stock.

Support vehicles for maintenance crews are also necessary and in many cases these are conversions from redundant revenue stock. These vehicles will be dealt with in a future volume.

The 'Fishkind'

To save on telephone time the Great Western Railway introduced a telegraphic code name system in which rolling stock was given a simple name thus enabling a requirement to be transmitted as the number of the type rather than having to describe the vehicle in detail - which led to inaccuracies and inadequacies. The 1939 GWR Telegraphic Code Book listed all the names which had widespread but not universal acceptance.

Engineering Department vehicles were given names which in many cases had marine connections and this system has been extended as new vehicles have been introduced - the names being referred to as 'Fishkind'. The code name was usually painted on the vehicle and many of these names will be referred to in the captions for the photographs which follow. Current practice is to switch away from this system and use the TOPS four letter code instead.

TOPS Coding

This system as applied to Departmental rolling stock uses four letters only three of which appear on vehicles. The first letter is one of:- Q: Coaching stock design, Y: Freight stock design bogie vehicle and Z: Freight stock design vehicles with 2 or 3 axles or special types, (which could be a bogie design). The second letter denotes the use of the vehicle and this will be detailed in the captions to the photographs whilst the third letter gives the type of brake system on the vehicle and this may be:- A; Air braked, B; Air braked with vacuum through pipe, H; Dual AFI and air brakes, O; Handbrake only (unfitted), P; Handbrake only but vacuum piped, Q; Handbrake only but air piped, R; Handbrake only with dual air and vacuum pipes, V; Vacuum braked, W; Vacuum braked with through air pipe and X; Dual braked - air and vacuum.

Following the introduction of TOPS coding the Chief Civil Engineer's Fleet was controlled centrally and their previous allocations were painted over. Some of the photographs feature vehicles which still carry lettering from this system. The allocation letters were:- E; CCE, ME; CM&EE (Chief Mechanical and Electrical Engineer), ST.; CS&TE (Chief Signal and Telecommunications Engineer) and OD; Operating, Commercial or General Manager's Department. These codings were followed by a regional letter viz. E,M,S,Sc or W.

Numbering

Group Q usually have numbers in the 95XXX series for vehicles taken into Engineer's stock from circa 1966. Before this such vehicles had regional numbering viz. DE 320XX for Eastern region, DM 395XXX for London Midland region, DS 70XXX for Southern region and DW 150XXX for Western region.

Groups Y and Z - if converted from revenue stock retained their original number with the departmental prefix. New-build departmental stock usually carrying a 9XXXXX number has the operator's prefix to the DB coding. All departmental stock has a two or three letter prefix to the number. The penultimate letter is D followed by any one of E, M, S, or W or for post-1966 BR rebuilds, B. In recent times C has appeared as the last letter on air braked stock in the Engineer's fleet. Preceding these letters there may be a third letter introduced in the 1970's viz, A; for CM&EE, C; for BREL, K; for S&T, L; for CM&EE (Electrification), P; Shipping and Internal Services Division, R; Research, T; Traffic (Operating), X; Stores and Z; Publicity (BR Board).

Liveries

From 1948 to 1960 - Black all over with yellow lettering.

1960 to 1963 - Gulf red body, black underframes and bogies with white lettering.

1963 to 1983 - Olive drab (green) body with black underframes and bogies, grey roof, white lettering. Tops codes were added from the mid 1970's and overhead electrification warning flashes were applied.

1984 onwards - Yellow band with light grey, (Railfreight grey) body, white lettering - sometimes on black patches and black underframes and bogies.

Other colours could be encountered as well as 'weathered wood', as will be noted in some of the photographs and ex-revenue stock often retained its original livery for some time after being taken into Engineering Department stock.

Since privatisation, new liveries have been applied to Engineer's stock and these will be referred to where they occur in the photographs which follow.

Allocations

Many Engineering Department wagons were allocated to specific depots and this information was painted on the sides or it was present on a cast plate (*see plates 11, 19 and 30 for some examples*).

This practice was common in the days of the Big Four and it was continued by BR but it did not restrict the movement of stock



Plate 1. DW14392 is an ex-GWR diagram P.14 10T, (8 cubic yards), ballast wagon built at Swindon works in 1911. These were the first ballast wagons to have a central pillar between the two dropside doors and also they were the only ones to have GWR self-contained buffers. It has a 9ft wheelbase chassis with GWR oil axleboxes, unfitted Dean-Churchward brakegear, spoked wheels and three-link couplings. Note the 'Neath Division' cast allocation plate on the solebar. Livery is weathered black with yellow lettering and it was photographed at Rossett on 15th November. 1961.

N.



Plate 2. DW80719 was built to GWR diagram P15 at Swindon works in 1936 and has many features in common with the wagon seen in the previous photograph including the all-steel body which has a similar capacity, brakegear, axleboxes, livery and wheelbase. Differences include split spoked wheels, spindle buffers, Instantan couplings and a longer and deeper body. TOPS coded ZCO, the code name was 'Starfish' but it was rarely carried. BR built 80 basically similar wagons to diagram 1/566 at Swindon Works in 1949, the only difference being lever brakegear. Photographed at Par in Spring 1975. D.L.

Plate 3. DB988110 is a 14T unfitted ballast wagon, code named 'Ling' but not being displayed here. It was built to diagram 1/567, lot No. 2090, (one lot of 200 wagons, DB988000-988199), at Swindon works in 1948, being similar to the earlier GWR diagrams P19 and P21. Note the three-part drop sides, 20T standard brakegear and three-link couplings. Livery is black with mixed yellow and white lettering and it was photographed at Llandovery in Spring 1971. D.L.





Plate 4. DW80746, code named 'Tunny' (which should really be 'Tunny'), is rated at 20.5T and like the 'Ling' and 'Starfish', it was developed from earlier GWR designs. It has a 12ft wheelbase chassis and measures 21ft 6ins over headstocks. Note the arrangement of the brakes, tie bars, spindle buffers and split axleboxes. Livery is rusty black with yellow lettering and it here stands condemned at Swansea Docks on 26th August, 1990.

A.T.

Plate 5. DB991124 is one of the BR-built 'Tunny' ballast wagons which only differs from the wagon above in having BR open front axleboxes. We see here the other side of the brakegear with a long lever to the central V-hanger. Livery is very weathered rusty black with white lettering and a pale green triangle under the overhead warning flash. Photographed at Kidderminster on 30th May, 1991.

G.G.





Plate 6. DS61980 is a 20T vacuum braked SR-built sleeper wagon code named 'Tunny'. It was built by the Birmingham Railway Carriage & Wagon Co to SR diagram 1771, (60 wagons, DS61945-62004), in 1928 and measures 24ft 5ins over the buffers. The 12ft wheelbase chassis has four shoe brakegear, split axleboxes, tie bars and spindles buffers. Note the profusion of door bangers, tall vacuum brake pipe standard and Instanter couplings. Livery is 'weathered wood' with white lettering - the lower left plank is black, the one top right is red. Photographed at Radyr on 13th June, 1992. S.J.

Plate 7. DS61975 is one of the same diagram as the previous wagon but here we see the other side of the brakegear. The second plank down on the sides of these wagons was in fact steel channel flush side out. Note the damage to the top plank on the end and the 'boxed' style of white lettering on an olive drab body except for the near end which is 'weathered wood'. Solebars and below are black and it was photographed at Hoo Junction in Autumn 1969. D.L.





Plate 8. DB991016, code named 'Lamprey', is a 20T ballast wagon which was built to diagram 1/570, lot No. 2065, (21 wagons, DB991000-991020), at BR Lancing works in 1949. The sides are fitted with door controllers and the tops have extra strengthening. The top end panel was removable, the lower one hinged down onto the protective housing over the spindle buffers. Note split axleboxes, tie bars, four shoe vacuum brakegear and three-hole disc wheels. Livery is olive drab body, white lettering and black solebars and below. Photographed at Battersea in Summer 1977.

D.L.

Plate 9. DB991151 is a similar wagon to the previous one but from the last lot, No. 2241, (160 wagons, DB991141-991300), built in 1951 by the Butterley Engineering Co Ltd. Note the roller bearings and the alternative square section top end panel. The sides have no top reinforcing channel and are bowing outwards under the strain of a considerable load of waste spoil. Livery is all over rust with white lettering on black patches and it was photographed at Healey Mills on 8th February, 1992

A.T.





Plate 10. DB991309 was built to diagram 1/570, lot No. 2102, (20 wagons, DB991301-991320), at Ashford works in 1949 and was then a 20T ballast wagon, code named 'Lamprey'. It was re-bodied to a 'Crab' 20T ballast wagon in the late 1980's and comparison with *plate 8* will show the similarities and differences between it and the 'Lamprey'. Livery is brown/rust with white lettering and it was photographed at Three Bridges on 5th May, 1991. A.T.

Plate 11. DB990399 is a 20T ballast and sleeper wagon, code named 'Grampus'. In excess of 4000 were built to diagram 1/572 in 23 lots between 1951 and 1959. This ex-works wagon in black livery with yellow lettering was the last one built to lot No. 2200, (300 wagons, DB990100-990399), at BR Shildon works in 1951. Based on the earlier GWR 20T designs (*see plates 4 and 5*), the ends comprise two upper removable planks which could be stored in racks mounted diagonally at the ends below the solebars, and a lower hinged section. Note the open front axleboxes and standard unfitted 20T brakegear. C.E.W.

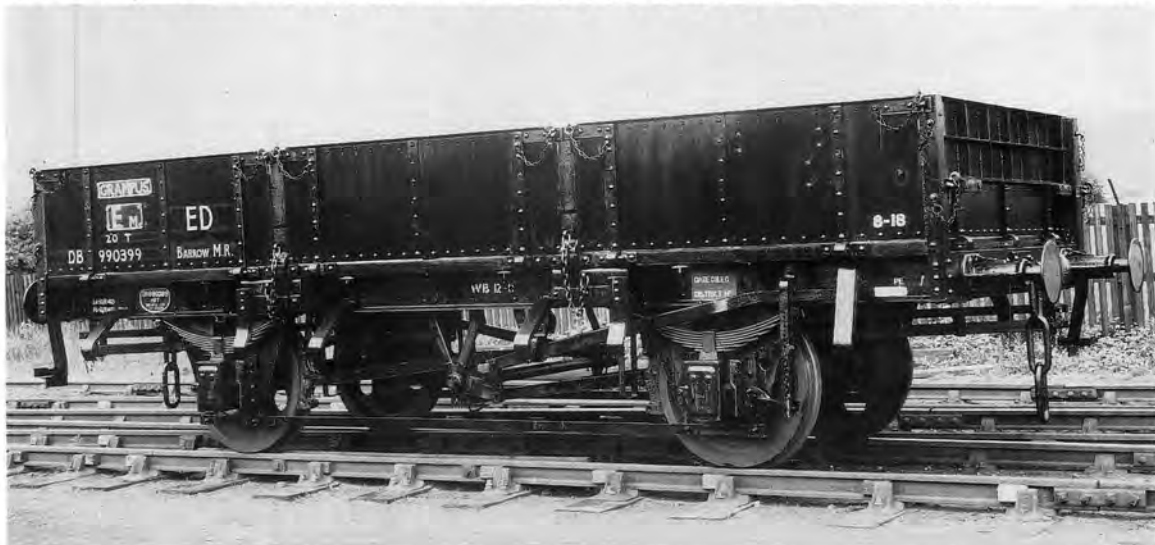




Plate 12. DB986543 - a 'Grampus' with living quarters!! It was constructed to diagram 1/572 lot No. 2887, (100 wagons, DB986456-986555), by the Derbyshire Carriage & Wagon Co Ltd in 1954 and is still as built with 1ft 6ins spindle buffers, split axleboxes, tie bars and 20T standard unfitted brakegear. Livery is rusty black with white lettering on fresh black patches. The hut has black walls with new felt on the roof and window-frames, lettering and graffiti are white. Photographed at Beighton on 14th November, 1988. A.T.

Plate 13. DB984320 in weathered rust with black patches and white lettering shows the typical late 1990's appearance of the rapidly diminishing 'Grampus' fleet. A diagram 1/572 wagon from lot No. 3049, (242 wagons, DB984308-984549), it was built in 1957 by the Butterley Engineering Co Ltd. Note the roller bearings, Oleo hydraulic buffers and the absence of storage racks for the top end panels. Photographed at Princes Risborough on 13th August, 1998. G.G.





Plate 14. DB991706 is a diagram 1/574 lot No. 3168, (544 wagons, DB991321-991864), 20T 'Grampus' wagon which was built in 1959 by Pressed Steel. Note the different buffers at each end and the different types of roller bearings. Livery is weathered and rusting yellow and grey with rusty black solebars and below. Lettering is white on black patches and it was photographed at Princes Risborough on 28th May, 1998. G.G.

Plate 15. DB991452 has the same build details as the previous wagon and it is as built except for having one pair of replacement Oleo buffers, (it was built with self-contained ones). Note the Hybox axleboxes, eight shoe vacuum brakes, three-hole disc wheels and screw couplings. Livery is rust all over with white lettering on black patches and it was photographed at Princes Risborough on 28th May, 1998. G.G.





Plate 16. DB986208 is a 25T general material carrier, TOPS coded ZDA and code named 'Hake'. This was an attempt to modify the 'Grampus' wagon design and the chassis has received a radical update with air brakes, disc wheels and long link suspension. The original build was to diagram 1/572, lot No. 2885, (202 wagons, DB986138-986339), constructed by the Gloucester Carriage and Wagon Co Ltd in 1956, but only three wagons were converted - DB986147/208 and 251. Livery is yellow and grey body with white lettering and black solebars and below. Photographed at Hoo Junction on 20th February, 1988. T.R.

Plate 17. DB985300, coded 'Rudd' and ZBA, was built as a 20T 'Grampus' wagon of diagram 1/572, lot No. 2362 but it has been given a new lease of life. Now fitted with eight shoe air brakes, it also has new ends and is seen ex-works at Doncaster Decoy Yard on 9th July, 1988. Note the SKF roller bearings, spindle buffers, Instantan couplings and tie bars. Livery is yellow and grey with white lettering, 'Rudd' being painted in grey. A.T.





Plate 18. DB972694, code named 'Rudd' with a TOPS code of ZBA, is a 21T ballast and sleeper wagon which started life as B430822, a 21T hopper coal wagon of diagram 1/146, lot No. 3157 built by Pressed Steel in 1958. Conversion was via design code ZB002A, (when some 800 wagons were produced by C.C.Crump and Marcroft Engineering). The chassis retains most of its original features but it is now airbraked and a new body and buffers have been fitted. Livery is yellow and grey with black lettering on the grey background and white on the yellow. Photographed at Nuneaton on 4th October, 1996. T.R.

Plate 19. ES62461 - introduces a short section on early wooden wagons. This ancient 13T ballast wagon looks sadly out of place surrounded by 'Grampus' and 'Walrus' wagons. It was built by the SE&CR in 1923 to their diagram No. S2139/4 and carried number 547. The two plank body has fixed ends and full length dropside doors. It has split axleboxes, one-sided brakes controlled from both sides, three-link couplings and split spoked wheels. The self-contained buffers look more modern than those on the adjacent wagons but the only noticeable paint is the white lettering which reads: 'RETURN EMPTY TO/BROAD CLYST'. Note the lettering on the 'Grampus'; wagon and the two different 'Walrus' hoppers in the background. Photographed at Meldon Quarry in 1959. P.C.





Plate 20. M283770 is an ex-LNWR 10T three plank ballast wagon with fixed ends and full length dropside doors. Note the sturdy spindle buffers, split spoked wheels, three-link couplings and four shoe independent type brake gear. The headstocks are specially shaped at the ends because of the extra long handbrake levers. Livery is mainly weathered wood with white lettering. It was built at Earlestown works in 1917 and was photographed at Willesden on 10th December, 1955

P.C.

Plate 21. D297201, (the 'M' has been separated - it should be DM297201), is an 8T ex-Highland Railway two plank open wagon with dropsides, (note no door bangers), and ends which can be lowered onto the supports cast on the spindle buffer housings. The solebars and headstocks are wooden and it runs on split spoked wheels. There is a single brake shoe on each side operated by a long brake lever and it has Highland Railway 'open top' axleboxes. Built at Lochgorm works in 1902, it was photographed at Inverurie works in August 1956.

P.C.





Plate 22. DM742973 is a 12T unfitted ballast wagon, code named 'Sole', built originally by the LMS to diagram D2095, lot No. 1426, (100 wagons, DM742960-743059), at Derby works in 1946. It measures 20ft 8ins over headstocks and its 10ft wheelbase unfitted chassis has one-sided two shoe brakes, spindle buffers, open front axleboxes and three hole disc wheels. Both the ends and the sides can be lowered - the former to lie on the headstocks and the latter in two sections with a hinged stanchion in between them. Livery is weathered wood with black solebars and white lettering on black patches. Photographed at Wigan in March 1978.

D.L.

Plate 23. DB982295 is a BR 'Sole' of diagram 1/565, lot No. 2264, (200 wagons, DB982150-982349), constructed by Fairfields Shipbuilding and Engineering Co Ltd in 1950. Note the split and open front axleboxes, Morton style four shoe unfitted brakegear, spindle buffers and three-hole disc wheels. The body is a mix of weathered wood and red oxide with white lettering - the handpainted numbers reduce in size to the right! Photographed at Basford Hall, Crewe on 11th October, 1969.

D.R.





Plate 24. DB982139 is a TOPS coded ZCA 'Sole' built to diagram 1/565, lot No. 2012, (150 wagons, DB982000-982149), in 1949 at BR Wolverton works. It is one of five 'Soles' which were given air brakes for working on ballast trains through the Mersey tunnel. Livery is bare wood with white lettering on black patches and it was photographed at Birkenhead Docks on 4th August, 1980. R.SL.

Plate 25. DM749271 is a 13T sleeper wagon, code named 'Haddock', built by the LMS to diagram 2095, lot No. 1365, (100 wagons, DM749259-749358), in a joint Derby and Wolverton works project in 1944. It has a similar underframe to the 'Sole' in *plate 22*, except for split axleboxes but the body here has fixed ends and extends the full length of the underframe. Livery is mainly bare wood with white lettering - note the allocation to Ditton (Sleeper Depot). Photographed at Newbury on 7th April, 1975. R.SL.



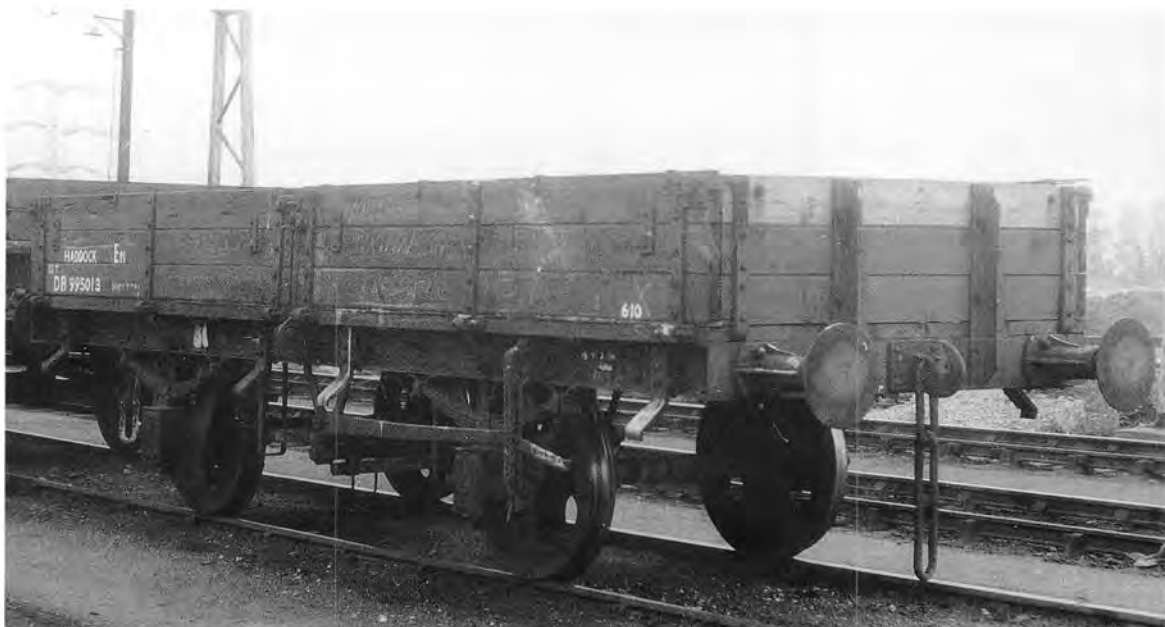


Plate 26. DB995013. BR built one lot of 'Haddocks' to the same design as the LMS vehicles but to BR diagram 1/621. Numbered DB995000-995049, they were constructed in 1950 by the Butterley Engineering Co Ltd. This wagon has open front axleboxes and the livery is a mixture of red and unpainted planks, black solebars and below and white lettering, seen here at Hoo Junction in Spring 1970. D.L.

Plate 27. DB997303 is one of only six wagons built for the S&T Engineers to diagram 1/619, lot No. 2608, (DB997300-997305), at BR Wolverton works in 1954. It has three plank two section dropsides and steel panelled 'Grampus' style ends. The headstocks are like those on a 'Sole' and the buffer arrangement is like that of the 'Lamprey'. Livery is weathered wood with black ends and solebars, lettering is white and it was photographed at Falkirk in Spring 1976. D.L.





Plate 28. KDM423598 is an ex-revenue wagon which has been taken into Departmental stock. It was built to LMS diagram 2150, lot No. 1511, (1200 wagons, 423425-424624), at Derby works in 1949 and is TOPS coded ZGV, having four shoe vacuum brake gear although it was built unfitted. The buffers have been modified and it has BR/LNE and LNE open front axlebox covers. Note the screw couplings, tie bars and three-hole disc wheels. Livery is overall weathered bauxite with a new plank on the door and a red oxide one to the left. Solebars and below are rust finish and lettering is white, some being on a black patch and that in the box reads: 'BUILDING INSPECTOR/OLD RAIL STORES/CREWE'. Photographed at Toton on 15th July, 1988.

S.J.

Plate 29. DB388263 originated as a 27T ironstone tippler wagon which was built to diagram 1/183, at BR Derby works in 1961. It has eight shoe clasp type vacuum brakegear, (TOPS code is ZKV), Oleo buffers, roller bearings and three-hole disc wheels. Livery is yellow and grey with black solebars and below. Lettering is white excluding the code name 'Barbel' which is grey and it was photographed at Bristol East Yard on 1st May, 1994.

T.R.





Plate 30. W50047 is an ex-GWR diagram P22, 20T centre discharge ballast hopper wagon which was built at Swindon works, (100 were built between 1945 and 1948). It has four shoe vacuum brakes (note the cylinder between the hopper end stanchions), self contained buffers, Instantan couplings, split axleboxes and spoked wheels. The hopper was discharged using the bar mechanism below the solebars. Livery is brown body, black solebars and white lettering part of which reads 'EMPTY TO COLEFORD'. Photographed at Hoo Junction in Spring 1970. D.L.

Plate 31. DB992199 is the third of the BR diagram 1/582, 20T ballast hoppers to the design based on GWR diagram P22. There was only one lot of 50 wagons (DB992197-992246), built in 1950 by Metro-Cammell. Code named 'Herring' and later TOPS coded ZLV, this vehicle has one set of split and one set of open front axleboxes and its livery is weathered Gulf red with white lettering - note 'HOPPER TRAIN No. 10' and 'DCE PRESTON' referring to the allocation and duties given to such wagons in the 1950's. It was photographed at Tees Yard in Spring 1981. D.L.





Plate 32. DB 992442 is also code named 'Herring' but this 20T centre discharge hopper wagon was built to diagram 1/584 - only one lot No. 2405, (100 wagons, DB992381-992480), in 1953-54 by Metro-Cammell. The design can be regarded as a derivative of the 'Trout', (see below), having similar reversed solebars and stanchions. It has eight shoe vacuum brakegear, a mixture of LNER and BR open front axleboxes, Instantan couplings and three-hole disc wheels. Note the single chute control wheel on the platform and the handbrake wheel. Livery is a weathered mix of black and Gulf red with white lettering and it was photographed at Carnforth on 12th June, 1986.

R.I.

Plate 33. DB992117 is a 25T 'Trout' ballast hopper wagon being the first one of diagram 1/580, lot No. 2188, (80 wagons, DB992117-992196), built in 1950 by Metro-Cammell to what was originally a joint LMS/LNER design. It has three ballast chutes but most of its other basic features are like those of the 'Herring' and 'Mackerel' which are based on it. Livery is overall rust with white lettering and it was photographed at Stratford in Spring 1980.

D.L.

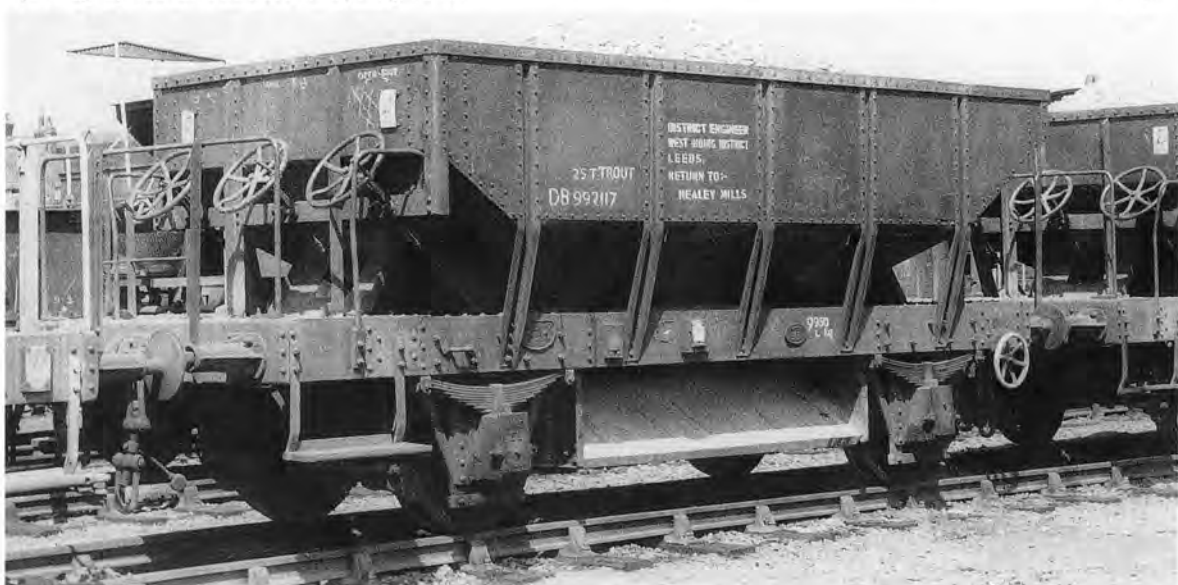




Plate 34. HW410 is a 20T hopper ballast wagon built in 1938 by the Gloucester Carriage and Wagon Co Ltd for London Transport. Three batches of these wagons were built between 1935 and 1965. Ballast was discharged through side chutes and a central one each with its own control wheel at one end. Note the split axleboxes with the double set of springs, large headed self-contained buffers and the handbrake wheel. The side chutes have been modified here to give normal discharge. Standard height Instanter couplings and Underground Ward couplers are fitted. Photographed at Highley on 25th September, 1992.

A.T.

Plate 35. HW436 is similar to the previous wagon but comes from the third batch which were built at BR Shildon works, in this case in 1965, and we see the non-platform end here. Note the roller bearings, tie bars and spoked wheels. The side chutes are the extended type to drop the ballast clear of the conductor rails. Livery is as above being light grey with white lettering - that on the solebar reads, (left to right), 'LOAD NOT TO EXCEED 20 TONS', 'P.W. ONLY' and 'HW 436', also photographed at Highley on 25th September, 1992.

A.T.





Plate 36. DB992362 code named 'Mackerel', these 17T vacuum braked wagons were BR's first new ballast hopper design and like the 'Herring', they were based on the LMS/LNER 'Trout'. Stanchions and solebars are similar to the latter but it has a smaller capacity hopper. It was built to diagram 1/583, lot No. 2284, (134 wagons, DB992247-992380), in 1951-52 by Metro-Cammell and its livery is Gulf red with white lettering and it was photographed at Ladybank in Summer 1970. D.L.

Plate 37. DB 992247 is the first 17T 'Mackerel' built. It was constructed to diagram 1/583, (one lot only of 134 wagons), built by Metro-Cammell in 1951. Note the vacuum cylinder at the righthand end, (which is also seen on the adjacent wagon), open front axleboxes, spindle buffers and three-hole disc wheels. Livery is weathered Gulf red with white lettering with 'HOPPER TRAIN NO.11' just showing through. Carrying a 'capacity' load, it was photographed at Speen Bridge on 22nd April, 1984. G.G.





Plate 38. DB983501 is one of the smaller BR standard four wheel hopper ballast wagons code named 'Catfish', which were built to diagram 1/586 between 1953 and 1960. From lot No. 3039, (201 wagons, DB983376-983576), this one was built by Metro-Cammell. TOPS coded ZEV, it has eight-shoe clasp vacuum brakes, self contained buffers, open front axleboxes and three-hole disc wheels. The central discharge chute is operated by the single control wheel on the end platform. Livery is olive drab body, black solebars and 'boxed' style white lettering and it was photographed at Toton in September 1978.

D.L.

Plate 39. DB983846 is a similar wagon to the previous one but it was built to lot No. 3331, (the last lot - 270 wagons, DB983627-983896), in 1961, by Metro-Cammell. This elevated view shows something of the inside of the hopper body and the open framework of the platform. Note the Timken roller bearings and the Oleo buffers. Livery is yellow and grey body with white lettering in 'broken boxes' and black solebars. Photographed at Springs Branch, Wigan on 3rd April, 1990.

A.T.





Plate 40. DB993559 is a 'Catfish' from lot No. 2929, (59 wagons, DB993508-993566), built by Metro-Cammell in 1956 and fitted with roller bearings. This view shows the vacuum cylinder end of the hopper. Livery is weathered/rusty black with white 'boxed' style lettering, some yellow due to rust stains. The handbrake wheel, steps and guard rails are also in white. Photographed at Bescot in Summer 1988. S.B.

Plate 41. DB993527 is a 'Catfish' variant code named 'Puffin' - note the ballast chute control wheel has been removed and the vehicle is seen in use as a rubbish collector at Bescot on 26th August, 1995. T.R.



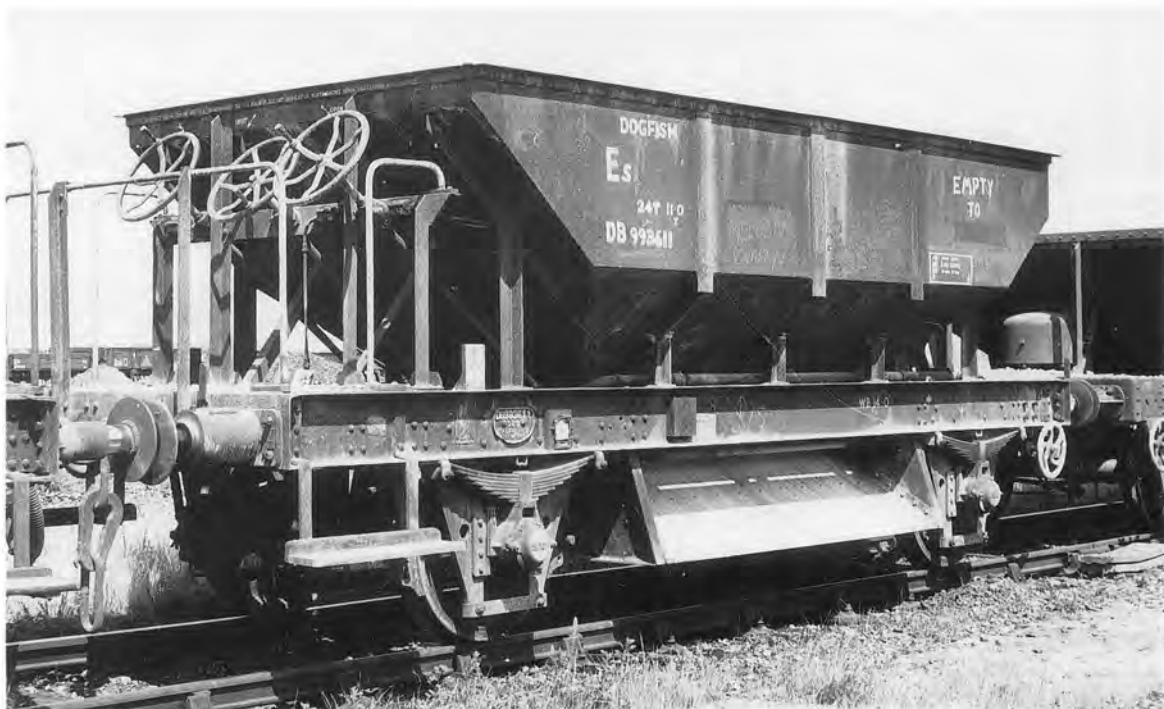


Plate 42. DB993611 is a 24T ballast hopper wagon code named 'Dogfish' being one of the larger BR standard design of four wheeled ballast hoppers. It was built to diagram 1/587, lot No. 3255, (68 wagons, DB993567-993634), at BR Shildon works in 1960. It has SKF roller bearings, eight-shoe clasp vacuum brakes, three-hole disc wheels and Duplex buffers. Note the three ballast chute control wheels - the chutes are the extended ones allowing ballast to be dispersed clear of the conductor rails especially on the Southern Region. Livery is black with white lettering and it was photographed at Hoo Junction in Spring 1968.

D.L.

Plate 43. DB983203 also of diagram 1/587 but to lot No. 2939, (the largest lot - 310 wagons, DB 983000-983309), was built by Charles Roberts & Co Ltd in 1957. Note the vacuum cylinder and handbrake wheel. The 14ft wheelbase chassis has self-contained buffers and open front axleboxes and its livery is rusty brown with white 'boxed' style lettering. Photographed at Leeds City Station on 10th February, 1987. R.I.





Plate 44. DB983192 is a 24T 'Dogfish' ballast hopper wagon with the same build details as *plate 43* but it has had Timken roller bearings fitted and has a yellow and grey body, black solebars and below and white lettering. Handwheels, guard rails and steps are also white and it was photographed at Stoke Gifford on 3rd April, 1996. T.R.

Plate 45. DB993122 is a modified 24T 'Dogfish' hopper wagon built to lot No. 2821, (90 wagons, DB993059-993148), by Charles Roberts & Co Ltd in 1959. The sides and ends have been extended upwards so that the wagon can carry its usual load of slag ballast rather than stone. It has shallow angle chutes and its livery is black with white lettering on bauxite panels. The small lettering reads 'MELDON/OKEHAMPTON' and it was photographed at Hoo Junction in Spring 1968. D.L.





Plate 46. DB992004 is a 25T hopper ballast wagon code named 'Gannet' which was built to diagram 1/581, lot No. 2027, (24 wagons, DB992000-992023), by the Teeside Bridge and Engineering Co. Ltd in 1949. (The code name was an LMS replacement for 'Trout', which was a different type of wagon). Unfitted, with open front axleboxes, spindle buffers and three-hole disc wheels, the hopper is centre discharging and is controlled by the solebar-mounted hand wheels. Brakegear is two shoe each side but independent of each other. BR/D.L.

Plate 47. GLE Ltd (Grant, Lyon, Eagre Ltd). Now in private ownership, this is one of the first batch of SR - built 40T bogie ballast hopper wagons, code named 'Walrus'. 25 of these were constructed to SR diagram 1772 by the Metropolitan Carriage & Wagon Co. It has diamond framed bogies set at 23ft centres and measures 32ft 6ins over headstocks. Vacuum cylinders are located at each end but there is only one platform end with control wheels for the central and side ballast chutes. It has Oleo buffers and livery is all over yellow with black platforms, buffers and bogies. Lettering is black except for 'S' which is blue and it was photographed at Bury on 15th April, 1993. A.T.





Plate 48. DS62042 is one of the second batch of 'Walrus' hopper wagons built to SR diagram 1774, (DS62033-62054). The main changes here were the design of the hopper ends, operating wheels at both ends and the side chutes were extended so that discharged ballast cleared the third rail on SR electrified lines. Livery is black overall with mixed yellow and white lettering. The small lettering under 'N' reads: 'EMPTY TO LADYBANK' and above the wagon plate: 'This wagon must not be worked around/curves of less than 3 chains radius'. Photographed at Millerhill in Spring 1975.

D.L.
 Plate 49. DB992499. Diagram 1775 was the final SR design of 'Walrus' - the only major change being the use of cast Bettendorf pattern bogies. Metro-Cammell built one batch of 'Walrus' hoppers for BR under diagram 1/585, lot No.2411, (50 wagons, DB992481 -992530) in 1952. The only change here was to fit GWR plate type bogies - this wagon has had replacement Oleo buffers. Livery is black with white lettering and the triangle is light blue. TOPS coded YGV, it was photographed at Gateshead on 2nd June, 1990.

A.T.





Plate 50. DB982420 is a 50T bogie ballast hopper wagon code named 'Whale' which was an enlarged development of the 'Walrus' being 10ft high, just over 40ft over headstocks and 30ft 6½ins between bogie centres. TOPS coded YHA, it has chute control wheels at both ends (note the central one is larger), plate bogies with roller bearings and Oleo buffers. 90 were built to diagram 1/589 in 1966-67, (DB982350-982439). Livery here is olive drab body, black bogies with lettering in white and it was photographed at Tonbridge on 28th August, 1978.

D.L.

Plate 51. DB982558 - developed from the 'Walrus', the 'Sea Cow' is a 40T bogie ballast hopper. This one was built to diagram 1/591, lot No. 3724, (25 wagons, DB982540-982564) at BR Shildon works in 1971. It has Gloucester bogies with roller bearings and Oleo buffers. Note the handbrake wheel and the three ballast chute control wheels on the platform where the air brake cylinder can also be seen. Livery is faded yellow and grey with black bogies and lettering is white. TOPS coded YGB, it was photographed at Tonbridge West Yard on 11th August, 1991.

S.J.





Plate 52. DB980000 is the first of the 1981-built 'Sea Cows' - the difference here being the fitting of French Y27CS bogies. This one is finished in the unusual yellow and white livery with black lettering and bogies. Altogether 251 of this amended design were built in 1981-82, all having air brakes and being vacuum piped. Photographed at Hoo Junction in Summer 1981.

D.L.

Plate 53. DB982517 is a 45T bogie ballast hopper wagon code named 'Sea Lion' which is similar to the first batch of 'Sea Cows' except that it has dual brakes. It was built to diagram 1/590 at BR Shildon works in 1971. The platform seen here is the one carrying the air brake cylinder (on the right). Photographed at Hoo Junction in Summer 1981.

D.L.

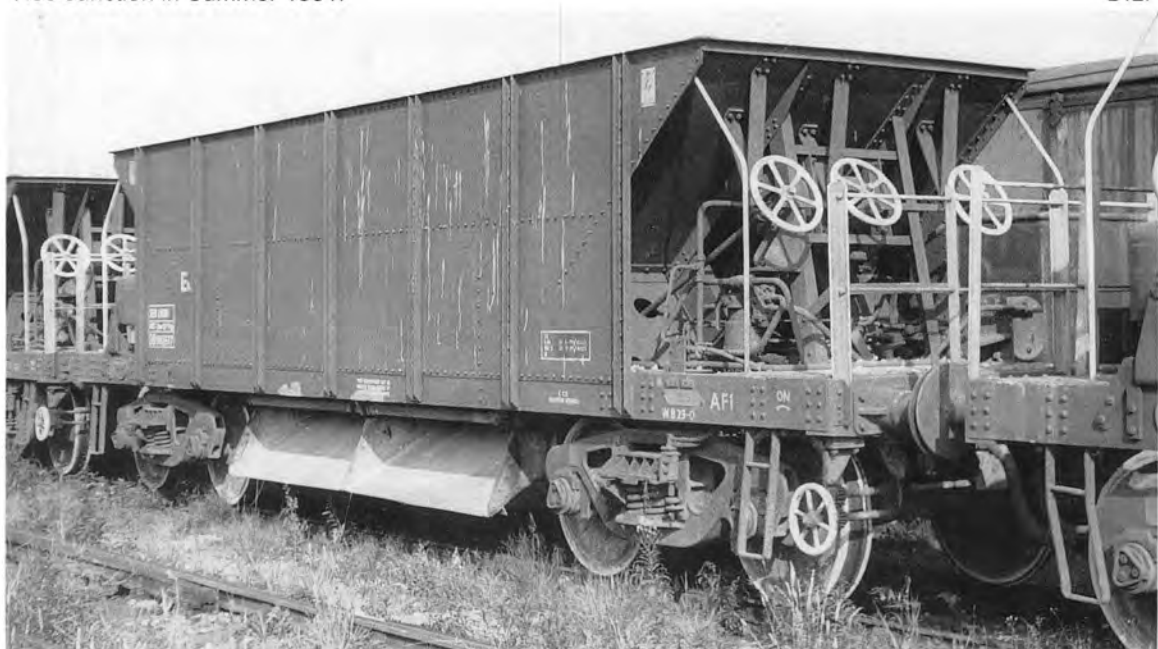




Plate 54. DB982615 is also a 'Sea Lion' but it was built to the final lot No. 3802 at BR Shildon works in 1972. TOPS coded YGH, we see the platform with the two different brake cylinders on, normal and AFI - the latter giving faster brake application in an emergency. Livery is weathered olive drab with white lettering, that on the third panel from the left reads 'EMPTY/TO/RETURN TO/CHEPSTOW/FOR TINTERN/QUARRY'. Photographed at Reading on 14th April, 1986.

M.S.

Plate 55. DB982872 also built to lot No. 3802 is finished in yellow and white with black solebars and below and black lettering. In this side view we see the air brake cylinder (left) and the two vacuum cylinders (right) as well as the overhead shields. It was photographed at York on 24th January, 1987.

A.T.





Plate 56. DB982470 is a 40T bogie ballast hopper wagon from the first batch of 'Sea Lions' but it is TOPS coded YGB being air braked with a through vacuum pipe. It is code named 'Stingray' and its livery is yellow and grey with black solebars and below and just above the yellow/grey division there is a red band, lettering is white except for the word 'STINGRAY' which is grey. Note the added side shields on the platform (right). Photographed at Bescot in April 1996.

G.G.
Plate 57. DB989077 is a 14T side-tipping ballast wagon, code named 'Mermaid' and built in 1953 to diagram 1/573, lot No. 2928, (17 wagons, DB989072-989088), by Metro-Cammell, who had patented the design which had first appeared in 1930. The 12ft wheelbase unfitted chassis has one-sided Morton brakegear - note the specially shaped handbrake lever, spindle buffers, open front axleboxes and three-hole disc wheels. It measures 21ft over headstocks and the solebars have a suspended rail clamp which is anchored to the running rail to stabilise the wagon when it is tipping in the opposite direction. Livery is rusty black with white lettering and it was photographed at Hoo Junction in the Winter of 1968-69. D.L.



Plate 58. DB989446. This 14T 'Mermaid' of diagram 1/575, shows its end details well with the pivoting arms attached to the bodyside which lift as the body tilts to allow the ballast to discharge - the arms are anchored to the chassis by the chains. Note the split axleboxes, Oleo buffers and Instantner couplings. TOPS coded ZJV, livery is weathered olive drab with white 'boxed' style lettering and it was photographed at Dringhouse Yard on 21st March, 1986. C.E.W.



Plate 58a. DB989440 - this photograph, taken at Doncaster works on 28th July, 1984, shows the chassis of this 14T 'Mermaid' with its eight-shoe vacuum brakes. It was built to lot No. 3330, (300 wagons, DB989289-989588), in 1960. We see here the rollers and their guides on which the body is mounted and which are vital to the side tipping action. A.T.

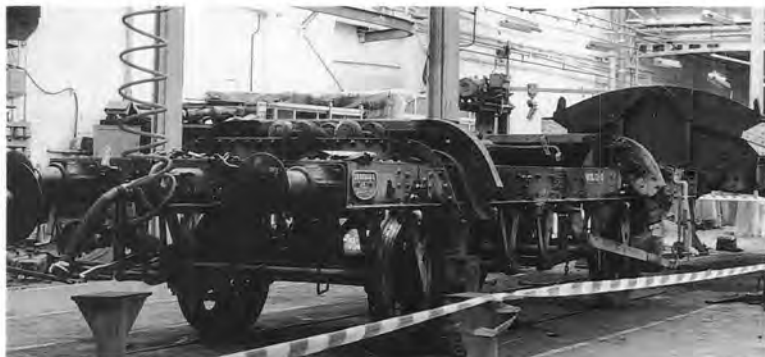


Plate 59. DB989153 of diagram 1/575, lot No. 3170, (150 wagons, DB989089-989238), built in 1959 again by Metro-Cammell is included here as it is code named 'Merdog' which was a name used on the Southern region in the 1970's when these hoppers ran in ballast trains with 'Dogfish'. Livery is red with black patches and white lettering. The solebar lettering reads 'Clip must be fastened/to the Rail/before tipping'. Photographed at Duddleston on 4th April, 1992. S.J.



Plate 60. DE633433, code named 'Shrimp', is a bogie ballast, rail and sleeper wagon built to LNER diagram 7. It measures 47ft 6ins over headstocks and has 5ft 6ins wheelbase bogies set at 35ft centres. Two-section three planked sides were fitted and tall steel ends, which were hinged and folded inwards. These features are absent here but they were like those of the 'Dolphin' (see plate 63). The cross bracing along the sides below the solebars characterised these wagons. Livery is weathered black with white lettering and it was photographed at York on 20th March, 1978. D.L.

Plate 61. ADB997648, also code named 'Shrimp', with little similarity to the previous wagon, was built by BR Lancing works in December 1953 to diagram 1/643, lot No. 2497 - just the one wagon. It has a standard 30T bogie bolster C chassis with three plank sides and ends. The sides are in four sections which slot in and four bolsters were fitted to the floor. Assigned to the 'S&T' Department, it was an elusive wagon which was generally parked in places alien to the camera! Livery is dirty olive drab body, black solebars and bogies with white lettering. Photographed at Horsham on 21st May, 1983. D.L.





Plate 62 DB990075 is a 20T bogie ballast and sleeper wagon, code named 'Pilchard' which was built by the Butterley Engineering Co in 1951 to diagram 1/571, lot No. 2121, (one lot only of 50 wagons, DB990050-990099). It has LNER pattern diamond framed bogies with open front axleboxes and its three planked wooden bodysides are divided into three drop sections separated by removable stanchions, the ends being fixed and made of steel. Livery is olive drab body with black bogies and white lettering and it was photographed at York in March 1978. D.L.

Plate 63. DE544430 - incorrectly prefixed 'DB' is code named 'Dolphin' and was built to LNER diagram 99. Designed to carry 60ft rails, it measures 65ft 7ins over headstocks and runs on 5ft 6ins wheelbase diamond framed LNER bogies with LNER open front axleboxes. The bogies are 10ft 0½ins from the headstocks which carry steel ends whilst the sides are three planked in three hinged sections. Note the long truss bar, fifteen door bangers per side, (a pain for modellers!) and the handbrake wheel at one end only. Livery is grey/weathered wood with white lettering and it was photographed at Bridge Street, Northampton on 1st October, 1988. A.T.





Plate 64. DB994885 is TOPS coded YPA and code named 'Tench' being basically an air braked 'Sturgeon A' which was built to diagram 1/645, lot No. 2614, (141 wagons, DB994859-994999), in 1955 by Head Wrightson. This 50T bogie rail and sleeper wagon was the BR equivalent to the 'Dolphin' and measures 66ft 1ins over headstocks and runs on 5ft 6ins wheelbase bogies with 2ft 6ins diameter wheels - the bogies being set at 46ft centres. The planked sides are in seven hinged sections each with a pair of door bangers. Note the handbrake wheels at each end, heavy duty self-contained buffers and Instanter couplings. Livery is weathered olive drab with white lettering and it was photographed at Doncaster Decoy Yard on 4th March, 1989.

A.T.

Plate 65. DB994442 is a 50T 'Sturgeon A' rail, sleeper, ballast etc. wagon built to diagram 1/647, lot No. 3265, (46 wagons, DB994422-994467), at BR Lancing works in 1960. This lot was built with vacuum brakes but it is now TOPS coded YBA and the air brake pipe can be seen next to the screw coupling. Sides and ends have been removed, (compare with the previous wagon) so that it can be used to carry sections of track for which two large longitudinal timber baulks have been fitted. Livery is yellow body, grey ends, black bogies and truss bars and lettering is also black. Photographed at Beighton on 8th February, 1992.

S.J.





Plate 66. DB997600 is a 30T bogie bolster wagon code named 'Prawn', which was built at BR Swindon works in 1951 for the Signal and Telegraph Department, to diagram 1/471, lot No. 2271, (34 wagons, DB997600-997633). It has GWR style plate bogies and self contained buffers. Used to carry long signal posts etc., its livery is olive drab body, black bogies and white 'boxed' lettering part of which reads: 'EMPTY TO READING'. Photographed at Reading in Autumn 1976.

D.L.

Plate 67. DB923277 is a 30T bogie bolster C wagon which was built to BR diagram 1/477, lot No. 3341, (200 wagons, DB23100-923299), in 1961 at BR Swindon works. The bolsters and stanchions have been removed here but many other original features remain. Note the Davis & Lloyd cast bogies with roller bearings and the short handbrake lever. It is TOPS coded YSW and the vacuum cylinder can be seen under the code name - 'Bream'. Livery is black underframe, red/rusty body with white lettering - mostly on black patches and it was photographed at Sheffield on 26th March, 1988.

S.J.





Plate 68. DC950112 is a 58T bogie rail wagon of design code YA001A, lot No. 3907, rebuilt in 1978 at BREL Ashford works. It started life as a bogie bolster D, B942346 of diagram 1/472, lot No. 2787, (200 wagons, B942330-942529), built in 1956 by the Teeside Bridge & Engineering Co. Code named 'Brill', it has air brakes, Oleo buffers, Y25C bogies and screw couplings. It retains handbrake levers and original bolsters and the livery is black solebars and below, yellow sides and grey ends, lettering being black. It was photographed at Sheffield, Brightside on 18th October, 1987. A.T.

Plate 69. DB996028. TOPS coded YMA, this 50T bogie rail wagon was built to diagram 1/640, lot No. 2216, (75 wagons, DB996025-996099), in 1950 by the Teeside Bridge & Engineering Co. Code named 'Salmon', it is very similar to the LMS design which was built to special diagrams 19 C,D,E and G. It is 62ft over headstocks and has specially designed LMS bogies which had brake levers attached to them. Note the heavy duty buffers, Instantan couplings and the air brake pipe on the end. The five bolsters have been removed from the wooden planked floor and livery is as seen in the previous wagon, although the yellow has faded. Photographed at York Wagon Repair Depot on 27th October, 1994. S.J.





Plate 70 and 70a. DB996971 is a BR built 51T 'Salmon' bogie rail wagon constructed to diagram 1/625, lot No. 3352, (one lot only of 25 wagons, DB996970-996994), by Powell Duffryn in 1961. TOPS coded YMB, it has 8ft wheelbase plate bogies with 2ft 8ins diameter wheels. Note the handbrake wheel and steps picked out in white and the companion lower view shows the bogie details as well as the air and vacuum brake pipes, buffers, screw coupling and the later pattern roller adjusters for the blue nylon ropes anchoring the load of new concrete sleepers. Livery is black running gear, yellow bodysides and grey ends, lettering being white on black patches with some of the earlier black letters still showing. Photographed at Princes Risborough Station on 26th February, 1998.

G.G.

Plate 71. DB996495 is a diagram 1/646, 51T 'Salmon' bogie rail wagon of lot No. 2926, (98 wagons, DB996421-996518), built by G.R. Turner in 1956. It is unfitted, (TOPS coded YMO), but its main constructional features are as for the previous wagon, but note the box on the truss bars which is used to store the chain shackles in. The five bolsters are retained here as is the end flap which hinges over the buffer housings and the wagon has been fitted with lifting equipment which is in yellow. It was photographed at Didcot on 29th November, 1979

B.D.



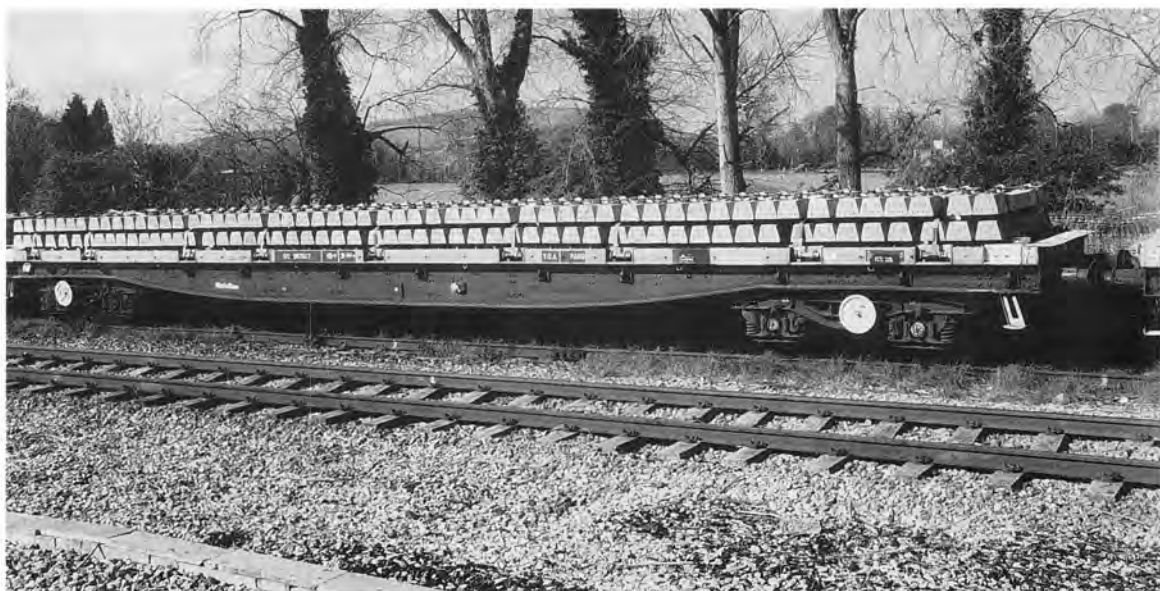


Plate 72. DC967507 is a 49T borail wagon, TOPS coded YQA, which was originally built at BR Derby works in 1961 as a diagram 1/483, lot No. 3333, (95 wagons, B946115-946209), 50T bogie bolster wagon numbered B946147. It was converted via design code YQ001A, lot No. 4012 in 1981 at BR Shildon works. Note the Y25C bogies with centre-mounted handbrake wheels. The body is yellow with grey ends and lettering is white on black patches. Bogies and solebars are also black. Code named 'Parr', it was photographed at Princes Risborough Station on 27th April, 1998.

G.G.

Plate 73. DC950181 is an experimental wagon, TOPS coded YMA and code named 'Eel'. It is a 58T steel carrying bogie wagon which was rebuilt to lot No. 3907 at BR Ashford works in 1978. Note the end plates with two fixed stanchions and steel plate floor. Livery is yellow body, grey end plates and truss bars, white stanchions and black bogies and lettering. Photographed at Springs Branch, Wigan on 3rd August, 1990.

A.T.





Plate 74. DB997816 was built to design code YD001A, lot No. 4005, (22 wagons, DB997801-997822), at BR Ashford works in 1981. TOPS coded YDA, and code named 'Skate', it is a 50T bogie spoil skip wagon. Note the extended sideframes and the non-standard shape of the buffer heads. Livery is black sideframes with white 'boxed' style lettering - that to the right of the handbrake wheel reads: 'NOT TO BE/LOOSE SHUNTED'. The skips are yellow and the wagon was photographed at Healey Mills on 8th February, 1992.

S.J.

Plate 75. DB979127 is a 51T welded rail bogie wagon built to design code YE007A, lot No. 4055, (48 wagons, DB979084-979131), at BR Doncaster works in 1985. It shares many constructional and livery details with the previous wagon. Note the yellow painted guides for the lengths of rail, the side stanchions and the length of rail fixed along the tops of the solebars. Photographed at Doncaster Decoy Yard on 30th June, 1990.

A.T.



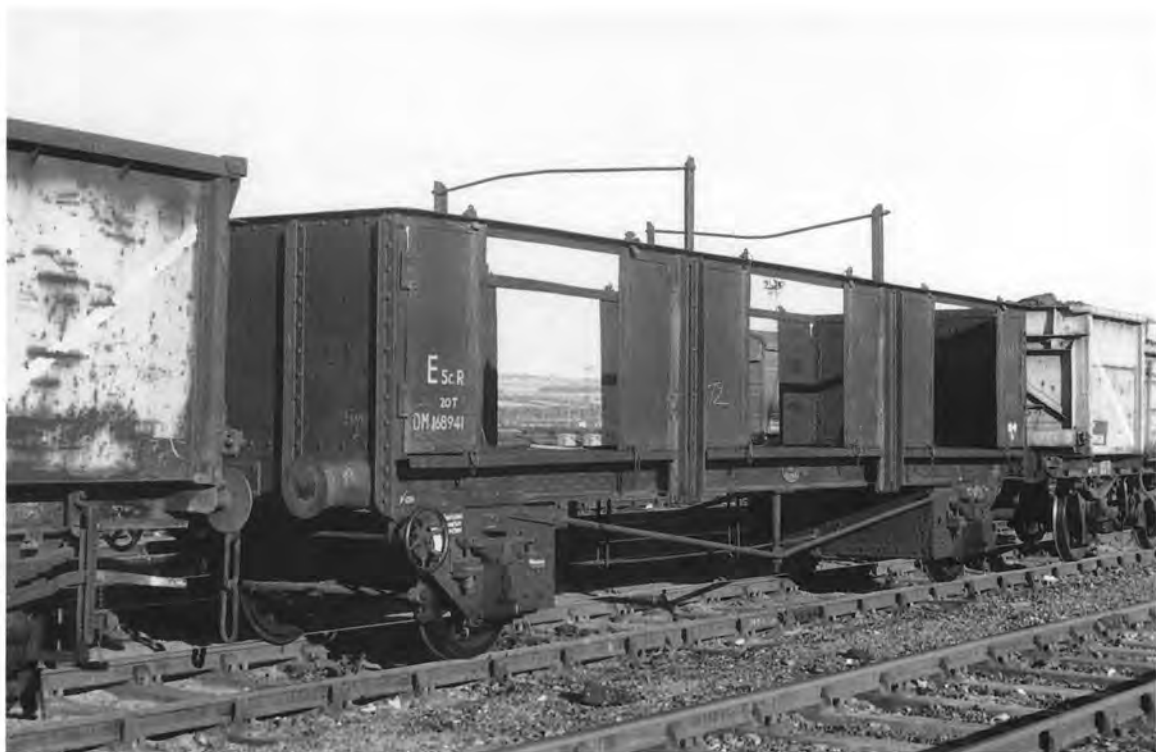


Plate 76. DM168941 is an ex-LMS 20T (rebuilt) chaired sleeper wagon with a wheelbase of approximately 18ft and a very short distance between the wheels and the headstocks giving a length over headstocks of about 21ft. No diagram was issued and no code name was carried but some 45 wagons were originally built (DM33793, DM168920-963). The original axlebox/axleguard assemblies etc appear to have been mounted under a new solebar and there is a coach-type truss rod and queen posts on each side. These wagons spent most of their time in Scotland - note 'E.Sc.R' and this one was photographed at Millerhill on 29th June, 1965.

D.R.

Plate 77. DW100667 is an ex-GWR 18T chaired sleeper wagon of diagram T12, lot No. 1313, (one lot only of 18 wagons, 100667-82/4/5), built at Swindon works in 1938-39. Here it is seen as modified with planked sides. The 25ft wheelbase chassis has Dean-Churchward brakegear and self-contained buffers. Livery is black chassis, green body with white lettering and it was photographed at Didcot in the early 1980's.

B.D.





Plate 78. DB997710 is a 14T rail wagon of diagram 1/622, lot No. 2272, (27 wagons, DB997700-997726), which was built at BR Shildon works in 1952. Code named 'Whiting', it is branded :- 'S&T/EMPTY TO READING' which reflects the use made of many of these wagons for transporting signal posts, signalbox steps etc. It has spindle buffers, Instanter couplings, split axleboxes, J-hanger spring suspension with dampers, long link brakegear (it has wheelbase of 18ft) and spoked wheels. Livery is black with white lettering and it was photographed at Newbury on 7th April, 1975.

R.S.L.

Plate 79. KDB484176 was built to diagram 1/462, lot No. 3070, (50 wagons, B484150-484199), at BR Wolverton works in 1957, as a 12T pipe wagon. Now TOPS coded ZDV, it is finished in weathered olive drab with patches of bare wood and red oxide - lettering is white. The 12ft wheelbase chassis has four shoe vacuum brakes, split axleboxes, tie bars and spindle buffers and it was photographed at Norwich on 5th May, 1987.

A.L.





Plate 80. KDB730851 started life as a 22T tube wagon to diagram 1/448, lot No. 3288, (420 wagons, B730500-730919), at BR Derby works in 1960. Now TOPS coded ZDV, it is seen at Llanelli on 30th August, 1993. It has corrugated steel ends and the weathered red oxide wooden sides only have one small central door. The 18ft wheelbase chassis has eight shoe vacuum brakes, Oleo buffers and Hybox axleboxes. S.B.

Plate 81. DB715010 is an ex-Ferry open wagon which originally had eight planks and a sheet support rail being built to diagram 1/055, lot No. 2579, (20 wagons, B715000-715019), at BR Lancing works in 1957. Code named 'Seal', it is finished in grey with white lettering and retains its original RIV features including buffers, double link suspension and anchor points on the solebars. Note the single central dropside door. Photographed at Bescot on 7th July, 1996. S.B.





Plate 82. 110529 was built to design code ZD143C lot No. 3930 as a 31T open goods wagon in a batch of some 300 wagons constructed at BR Shildon works in 1978-79. It was then TOPS coded OBA but the code has now been changed to ZDA and it is a general materials carrier in the Engineer's fleet being code named 'Bass'. The only visible change here is in livery as it now carries standard yellow and grey with white lettering on the grey and black on the yellow and it was photographed at Doncaster works on 2nd November, 1986.

A.T.

Plate 83. DC100048 is also a general materials carrier wagon, TOPS coded ZDA, which originated as an OAA, 31T open goods wagon in the general revenue fleet. It was built to lot No. 3727 in 1971 at BR Ashford works and is similar in appearance to the previous wagon but there are only three wooden dropside doors, the ends again being steel and it has ten leaf double link spring suspension. Livery is as for the previous wagon and it was photographed at Woking on 6th May, 1991.

A.T.





Plate 84. DC100031 is also code named 'Squid' and is included as it has steel ends which are the same height as the sides, (the original OAA design), and it has early pattern sheet rope anchor points along the lower sides. Livery is as before and it was photographed at York Wagon Repair Depot on 26th September, 1994. S.J.

Plate 85. DB787316 is a 25T ZCX coded ballast and spoil wagon which was converted in 1989 from a 20T Ferry van of diagram 1/227, lot No. 3472, (250 vans, GB787098-787347), which were built at BR Ashford works in 1963. Code named 'Chub', it now only has a three plank body but the underframe is as built with RIV pattern buffers, suspension and anchor points on the solebars. Livery is yellow and grey body with white lettering, 'Chub' being in black which is the colour of the running gear. It was photographed at Hither Green Yard on 7th April, 1990. J.T.A.





Plate 86. DB973134 originated as B427345, which was a 21T hopper coal wagon built to diagram 1/146, lot No. 3036, (450 wagons, B426950-427399) in 1957 by Metro-Cammell. The underframe has been retained and a new heavily ribbed body has been constructed which has no doors. Still fitted with four shoe vacuum brakes, it has self-contained buffers and is now classed as a 21T ballast and sleeper wagon, code named 'Clam', (TOPS coded ZCV). 450 of these wagons were produced in 1989-1990 by RFS Doncaster and Powell Duffryn. It carries standard yellow and grey livery and was photographed at Didcot on 21st June, 1996.

T.R.

Plate 87. DB726319 is a 20½T ballast and sleeper wagon, TOPS coded ZCV, and code named 'Dace'. It was originally built at BR Derby works in 1962 to diagram 1/058 as a 20T shock absorbing wagon with a nylon hood. Conversion of 154 wagons took place in 1981-82 and involved the removal of the hoods, disabling the shock apparatus and subsequently fitting steel floors. This one is finished in grey with white lettering and was photographed at Hoo Junction on 19th February, 1996.

T.R.





Plate 88. DB726497 is similar to the previous wagon but note the corrugated ends. The bar on the solebar covered the longitudinal springs when it was a shock wagon. Livery is yellow and grey with white lettering. Some of these wagons carried small white lettering above the V-hanger - 'STEEL FLOOR FITTED' - after conversion. It has Oleo buffers, roller bearings and eight-shoe clasp vacuum brakes. Allocated to Meldon Quarry in their early years, they were stored out of use by 1997. Photographed at Hoo Junction on 6th February, 1994. T.R.

Plate 89. DC390150 code named 'Limpet' is a 33.8T ballast wagon which originated from a two axle air braked tank wagon TRL 51819 via a high sided open wagon TRL 5404. The conversion has been restricted to modifying the two central side panels and the chassis retains its roller bearings, long link suspension, Oleo buffers and air brakes. The sides are yellow and grey with white lettering. (INTERCITY being grey on a red background) and the ends are very weathered/rusty light grey. It was photographed at Margam Yard on 2nd April, 1996. T.R.





Plate 90. DB390010 is code named 'Zander' and is a 24½T ballast wagon which has a 15ft wheelbase chassis fitted with roller bearings, Oleo buffers and eight-shoe clasp vacuum brakegear. It shows little change from when it was built as an MTV coded mineral wagon on an ex-Private Owner railtank wagon chassis. Livery is as for the previous wagon and it was photographed at Didcot on 16th June, 1996. T.R.

Plate 91. DB987266 is a plate wagon conversion which was introduced in 1978. This wagon was converted from SPV B933372 into a 22T ballast and sleeper wagon via lot No. 3970 at BR Horwich works in 1980. Now TOPS coded ZCV, it has the code name 'Plaice'. The chassis shows little modification but the body is new. The ends are fixed with four rectangular stanchions whilst the sides have four drop sections, the upper one third of which is a framework, the top acting as a step when the side is lowered. Livery is mainly rust with white lettering on black patches. Photographed at Bank Quay Station, Warrington on 25th September, 1996. T.R.





Plate 92. DB987181 has the same origins as the previous wagon but in this low angle side view, the brakegear can be seen including the extra-long lever. Note the eight door bangers on the solebar. Livery is weathered yellow and grey with black patches carrying white lettering. Photographed at Nuneaton on 4th October, 1996.

T.R.

Plate 93. DB997539 is a 22T plate wagon to diagram 1/431, lot No. 2481, (5 wagons, DB997536-997540), built in 1953 at BR Shildon works and assigned for S&T Department. Code named 'Winkle', these wagons found similar use to the previous one - the TOPS code was ZVO but was not carried by many. Livery is basically weathered rust with white lettering which includes 'WINKLE' and 'E', 'S&T/LADYBANK Sc' and it was photographed at Ladybank on 15th March, 1970.

D.R.





Plate 94. DC460964 originated as a 31T air braked plate wagon - SPA, of lot No. 3962 which was built at BR Shildon works in 1980-81. This one worked from Cardiff Rod Mill and the faded Railfreight red livery still carries the remnants of the Rod Mill banner on the side. Now TOPS coded ZAA, it is in use as a ballast and sleeper wagon and is code named 'Pike'. The only alterations it has suffered are the 'ZAA', 'DC' and 'Mainline' lettering. Photographed at Princes Risborough on 30th May, 1996.

G.G

Plate 95. DC460206 is a similar wagon to the previous one but it is seen ex-works in yellow and grey livery with white lettering. Underframe details show up well here and note the fixed ends and three dropside doors. Photographed at Doncaster Wood Yard on 21st January, 1989.

A.T.





Plate 96. DC390256 code named 'Doorand', is a 33½T ballast wagon which is TOPS coded ZKA and was converted in the 1993-94 conversion programme from a Private Owner wagon numbered NAC5313. It has Oleo buffers, long link suspension and roller bearings and its livery is grey sides and ends which have yellow tops, black solebars and below and lettering is white on a black patch except the code name which is black. Photographed at York North Yard on 18th October, 1994.

S.J.

Plate 97. DB924820, TOPS coded ZCA, is a 30T ballast/spoil wagon which is code named 'Pollock'. It originated as a BR diagram 1/479 BEV, bogie bolster wagon of lot No. 3440, (100 wagons, B924800-924899), which was built at Ashford in 1962. Three wagons (924820/824 and 848), were converted at BR Shildon works in 1984. Note the FAT23 suspension, very short handbrake levers, disc wheels, Oleo buffers with large heads and screw couplings. The body is similar to that of a 'Turbot' (see plate 105), with three dropside doors and fixed ends. Livery is yellow and grey with white lettering and black underframe and it was photographed at Three Bridges on 5th May, 1991.

A.T.





Plate 98. DC112094 - code named 'Sea Horse', is a 41T ballast wagon, TOPS coded ZCA, which was built to lot No. 4014 at BR Shildon works in 1981. It has large headed Oleo buffers, short central handbrake levers, roller bearings and Bruninghaus single link four leaf spring suspension. Livery is yellow and grey with black underframe, lettering is white on grey and grey on yellow. Photographed at Tonbridge West Yard on 11th August, 1991. S.J.

Plate 99. DC110729 has similar running gear to the previous wagon but the solebar design is different. Code named 'Sea Urchin', it is a 31T ballast/spoil wagon with fixed ends. It was built to design code ZC110D, lot No. 3930 at BR Shildon works in 1979 and carries yellow and grey livery with white 'boxed' style lettering apart from the name which is in black as is the underframe. There are several variants to the 'Sea Urchin' design which relate to the original wagon that was used in the conversion - they have different fourth letters in their TOPS coding. Photographed at Nuneaton on 4th October, 1996. T.R.





Plate 100. DC 460252, also TOPS coded ZCA, carries the code name 'Sea Hare' and is a 31T variant having similar running gear to the two previous wagons. Whilst the ends are fixed, the sides can be lowered in three sections with stanchions between them. Livery is 'Loadhaul' black with orange ends and side ends. The top plating of the sides and the ends is white as is the lettering whilst the underframe is black. Photographed at Doncaster Wood Yard on 10th January, 1998. S.J.

Plate 101. DB970141 is a more obvious conversion from a 21T hopper coal wagon than those in *plates 18 and 86*. The only major changes are the reduction in height of the hopper and the removal of the bottom discharge. Now TOPS coded ZCV, its code name is 'Tope' and it is a 22T ballast wagon. Some 7000 of these wagons were converted in 1989-91 by RFS Doncaster and Powell Duffryn. Livery is yellow and grey body with black solebars and below, lettering being white. Photographed at York Wagon Repair Depot on 2nd December, 1993. S.J.





Plate 102. DB970257 is also a 'Tope' 22T ballast wagon but we see the other side of the four-shoe vacuum brakegear here. Note the spindle buffers, roller bearings, tie bars and three-hole disc wheels. Livery is as before and this wagon differs from DB970141 in having angle plates fitted to the ends to reduce spillage on loading. Photographed at Bletchley on 16th May, 1997.

T.R.

Plate 103 DC390537. TOPS coded ZFA and code named 'Gunnell', this is a 35T ballast hopper wagon which was originally built by Charles Roberts & Co Ltd in 1975 for Procor and TOPS coded PGA, being hired to Foster Yeoman to convey aggregate when it was numbered PR14115. It was converted for use as shown at Longport in 1993-94. Livery is yellow ends and top side panels and light grey elsewhere, with white lettering which may be on black panels. Note the retention of most of the original features including pedestal suspension and Oleo buffers but the upper body panels have been reduced in height and angle plates have been added. Photographed at Wandsworth Road on 11th April, 1996.

T.R.





Plate 104. DB981001 is one of two 50T bogie ballast/sleeper wagons built to design code YC501A, lot No. 4006, (DB981000-1), in 1980 at BR Shildon works and code named 'Halibut'. TOPS coded YCA, it has fixed ends with angled top plates whereas the sides consist of seven drop down doors. Livery is yellow and grey bodysides with black underframe and bogies, lettering is white. Photographed at Toton on 20th February, 1983.

D.L.

Plate 105. DB978055 - code named 'Turbot', is a 34T bogie ballast wagon built to design code YC502A, lot No. 4021, in 1982. It has Gloucester pattern cast bogies, Oleo buffers, Instantan couplings and short handbrake levers. The ends are fixed but there are three dropside doors. Note the heavy duty truss bars. Livery is as for the previous wagon and it was photographed at Toton on 26th September, 1982 when new into traffic.

D.L.





Plate 106. DB993706 is a 16T ballast plough brake van of LMS design but built to BR diagram 1/596, lot No. 2172, (7 vans, DB993702-993708), by R.Y.Pickering in 1950. Code named 'Oyster', it is unfitted but has a through vacuum pipe and there are outer ploughs at each end. Note the split axleboxes, self-contained buffers and the absence of the lower footboards. It was photographed at Oswestry on 22nd June, 1952.

Plate 107. KDS62858 is a ballast plough brake van which is TOPS coded ZPW and is rated at 25½T. It was built at Ashford works to SR diagram 1749 in 1948, (DS62857-64) and has the ploughs between the wheels which is also how they were arranged on LNER vans. GWR vans had a single central plough. The wooden body has several rotten planks and the 18ft wheelbase chassis has open front axleboxes, disc wheels, self-contained buffers and screw couplings. End detail shows up well including the tall vacuum brake pipe standard (painted red), the external rodding controlling the handbrake (operated from a wheel inside) and the air brake pipes. Livery is brown with white lettering and it was photographed at Doncaster Decoy Yard on 12th August, 1990.





Plate 108. DS62864 - the last SR diagram 1749 ballast plough brakevan built is code named 'Shark' and it has many features in common with the previous van but note revised vacuum brake pipe arrangement and TOPS code ZUW. It looks very smart in ex-works yellow and grey livery with white lettering, handrails, lamp brackets and the edges of the footboards. Photographed at Tonbridge West Yard on 11t August, 1991.

S.J.

Plate 109. DS62032 is a 20T ballast plough brakevan built in 1930 essentially to SR diagram 1748, (one van had been built in 1923). Closely similar to the two previous vans of diagram 1749, it is finished in olive drab with black roof, solebars and below, lettering being white including the 'Es' allocation and 'RETURN TO/---'. Photographed at Cliffe, Kent in Autumn 1969.

D.L.





Plate 110. DB993761, code named 'Shark', is a 20T ballast plough brakevan built for BR to diagram 1/597, lot No. 2657, (27 vans, DB993757-993783), in 1954 by the Birmingham Railway Carriage & Wagon Co. TOPS coded ZUV, the vacuum brake cylinder can be seen between the wheels and it has open front axleboxes, disc wheels, self-contained buffers, screw couplings and tall vacuum brake pipe standards. The planked wooden body has been plated on the verandah sides and the livery is yellow and grey. Photographed at Bescot on 7th July, 1996. S.B.

Plate 111. DB993827 also built to diagram 1/597 but lot No. 2931, (41 vans, DB993816-993856), has been fitted with a low vacuum pipe and Oleo buffers. It is finished in brown with white lettering and has red patches to the right of the latter. Photographed at Toton Wagon Repair Depot on 26th July, 1997. S.J.





Plate 112. DB993842 has the same build details as the previous van but it has retained its self-contained buffers. The wooden body has been plated externally except for the doors and it sports Mainline Blue livery with white lettering on black patches. Vacuum brake equipment has been removed as its TOPS code ZUA indicates and it was photographed at Princes Risborough Station on 4th April, 1996. G.G.

Plate 113. DB993937 is one of the final batch of 20T 'Shark' brakevans built for BR, who it will be noted followed the LMS design principal of having the ploughs at the ends of the vans. These were constructed to diagram 1/598, lot No. 3285, (20 vans, DB993921-993940), by the Central Wagon Co in 1960. Although basically the same as diagram 1/597, these vans were built with Oleo buffers, low vacuum pipes and roller bearings. The verandah ends and sides are plated and the livery is the standard yellow and grey with white lettering. Photographed at Didcot on 21st June, 1996. T.R.





This view towards Carlisle shows total occupation by the engineers at Scout Green on a brilliantly sunny 23rd July, 1967. BR Standard Class 4, 4-6-0, No. 75030 is well coated but in a grubby condition as it stands on the freshly ballasted up line in charge of a rail recovery train. The crane on the down line is dealing with the lengths of rail in the 'six foot' - the rest of its train being just around the bend in the distance. Note the marker pegs in the ballast on the left. Today the clutter of overhead electrification adds to the telegraph poles and 75030 - here shedded at 12E Tebay - has little service time left being withdrawn in December 1967 and by July 1968, it had gone to Arnott Young of Carmyle for scrapping.

F.W.S.

Back cover:

Top left: DB983867 is a 19T 'Catfish' ballast hopper wagon finished in the short-lived 'Gulf red' livery with white lettering. Over 700 of these small hoppers were built to diagram 1/586 between 1953 and 1961 in six lots all constructed by Metro-Cammell. This vehicle is one of the last lot - No. 3331, (270 wagons, DB983627-983896), built in 1960-61 which were equipped with Oleo pneumatic buffers and roller bearings. Note the platform at one end only, (with a single control wheel for the central ballast chute), handbrake control wheel and vacuum brake cylinder. TOPS coded ZEV, it was photographed at Duddleston on 17th April, 1994.

S.B.

Bottom left: NCB No. 12 is a 25T 'Trout' ballast hopper wagon having a second lease of life after retirement from BR. Initially built by the Leeds Forge Co. for the LMS and LNER, the design was continued by BR under diagram 1/580 when 113 were built in three lots by Metro-Cammell between 1949 and 1951. Unfitted, with outer brake shoes on all wheels, it has open front axleboxes, three handwheels on the single platform to control the ballast chutes and hand brake wheels on the solebars. The latter unusually have the channel section on the inside and the hopper stanchions are also reversed. Photographed at Murton on 23rd June, 1991.

A.T.

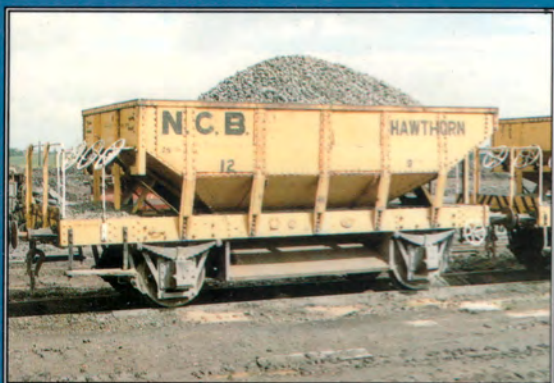
Top right: All ballast laying trains had one or two plough brake vans to spread the ballast. Code named 'Shark', DB993762 is one of lot No. 2657 (27 vans, DB993757-993783), built to diagram 1/597 by the Birmingham Railway Carriage & Wagon Co. in 1954. In 'weathered olive green' livery, this van shows the typical features including self-contained buffers, open front axleboxes and a small cabin flanked by large verandahs where the control gear for the ploughs was situated. Assigned to 'Hitchin Stockyard', this 'Shark' was photographed at Beighton on 4th March, 1989.

A.T.

Bottom right: DC390293 in 'Loadhaul' livery and TOPS coded ZKA, this 32T ballast wagon is seen ex-works at York Wagon Repair Depot on 6th September, 1994. It had been converted from the former private owner wagon, NACO5371 and is now code named 'Limpet'.

S.J.

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